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UNITED STATES PATENT APPLICATION FOR

GRAPHICAL USER INTERFACE FOR NAVIGATION, VIEWING AND MAINTENANCE OF RECIPES

Inventors:

Karen Theel

Eddie Oumerretane

Bill Stearns

Brad Stoutimore

Prepared by:

WAGNER, MURABITO & HAO LLP

TWO NORTH MARKET STREET

THIRD FLOOR

SAN JOSE, CALIFORNIA 95113

(408) 938-9060

GRAPHICAL USER INTERFACE FOR NAVIGATION, VIEWING AND MAINTENANCE OF RECIPES

RELATED APPLICATION

This Application claims the benefit of United States Provisional Application Serial No. 60/240,556, filed October 13, 2000, which is hereby incorporated herein by reference in its entirety.

FIELD OF THE INVENTION

Embodiments of the present invention relate to data base management systems for use in Enterprise Resource Management (ERM). More particularly, embodiments of the present invention provide a method and apparatus providing a graphical user interface for navigation, viewing and maintenance of recipes.

BACKGROUND ART

The manufacture of virtually all products requires a sequence of processing steps, a variety of ingredients, specialized equipment and tools, as well as operating parameters for such tools and processes. The Instrument Society of America (ISA) has standardized the term "recipe" to refer to these items. Standard ISA-S88 defines recipe as: "an entity that contains the minimum set of information that uniquely defines the manufacturing requirements for a specific product." Recipes provide a way to describe products and how those products are produced. The standard, ISA-S88 is hereby incorporated herein as background material.

Consequently, for businesses involved in manufacturing, documentation and control of their recipes is critical to their success. Further, obtaining and collecting

information about the manufacturing process, such as yield or throughput for a manufacturing stage, in order to improve utilization of materials or capital equipment, for example, can result in a critical competitive advantage.

Unfortunately, prior art systems for the management of recipes are primarily forms-based and typically do not automatically reflect the various levels of relationship between the many types of data. For example, the recipe might call for 100 kilograms of chemical "A." But in general, it would not be apparent to an observer that 11 minutes of time on machine "B" were required to utilize the chemical "A". While the requirement was presumably documented somewhere, the forms based management systems generally did not present such relationships to the users in easy to understand manners. Any such relationships between the types of data typically needed to be manually remembered by the user.

Further, there was no method of navigating among such relational linkages. Even if a user knew that some amount of time on some machine was necessary to process chemical "A," prior art recipe management software only provides cumbersome mechanisms to determine the specific requirements, especially if the starting point was the list of ingredients.

Because recipes are used to manufacture goods and perform industrial processes, the more efficient a recipe management system is, the more efficient is its overall manufacturing process, thereby saving expense and increasing quality.